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A case of spontaneous and simultaneous dissections of both common iliac arteries in a young patient ☆,☆☆

Keywords:
Iliac artery aneurysms
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Young patient

A 25-year-old man was admitted to the emergency department with a complaint of sudden left- and right-sided lower abdominal pains. An abdominal ultrasound (US) was performed for differential diagnosis. The US revealed aneurysms of both common iliac arteries. He was introduced to our department. A contrast media-enhanced computed tomography (CT) was performed for detailed diagnosis. The enhanced CT revealed the deviation of the intimas of both common iliac arteries and the right external iliac arteries (Fig. 1). Both of the common iliac arteries were spindle-shaped and expanded (Fig. 2); the maximum diameters were 22 mm in the right and 23 mm in the left common iliac arteries. There were pseudo-lumens in the left external and internal iliac arteries. The cause of the lower abdominal pains on both sides was diagnosed as simultaneous spontaneous dissections of both common iliac arteries. A whole-body screening that included the carotid, vertebral, visceral, subclavian, and renal arteries and abdominal aorta was performed; all of these vessels were found to be intact, he was diagnosed with solitary iliac aneurysms (SIAs). He was subsequently hospitalized in the cardiovascular surgery department of another hospital and required bed rest. After 7 days of rest, a follow-up enhanced CT revealed that neither iliac artery had worsened. He was administered an angiotensin receptor blocker and discharged home, and an elective vascular replacement surgery was planned.

SIAs are an uncommon disease, and the subjective symptoms are poor due to the location deep in the pelvic cavity. Hence, early detection is very difficult. The reported recommendations favour elective repair for aneurysms that measure more than 35 mm in healthy patients [1]. Spontaneous iliac artery dissection is also very rare. The causes include atherosclerosis, fibromuscular dysplasia (FMD), Ehlers-Danlos syndrome, Marfan syndrome, pregnancy, trauma and primary dissection (i.e., unknown cause) [2,3]. We suspected that the cause in this case was a primary dissection, because the patient did not have any risk of atherosclerosis or any indications of the abovementioned diseases. His serum anti-nuclear antibody (ANA), anti-ribonucleoprotein (RNP) antibody, anti-Smith (Sm) antibody, PR3- anti-neutrophil cytoplasmic antibody (ANCA), MPO-ANCA and immunocomplex C1q levels were all normal. To the best our knowledge, the youngest case that has been reported occurred in a 29-year-old woman [4], and simultaneous dissection of both common iliac arteries has not been reported.

In this study, we described the first case of simultaneous dissections of aneurysms in both of the common iliac arteries.

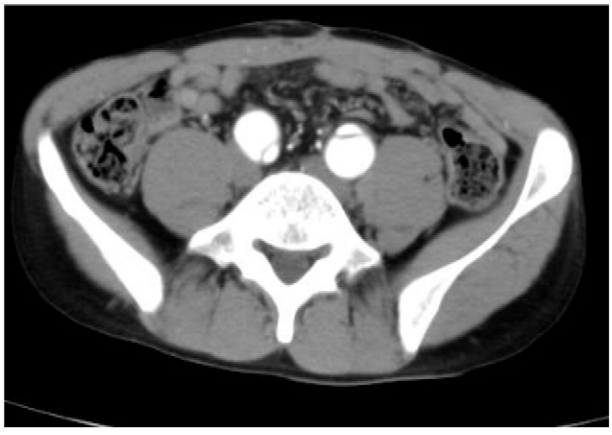

Fig. 1. Preoperative computed tomography scan showing both of the common iliac arteries aneurysms, which measured 22 mm.

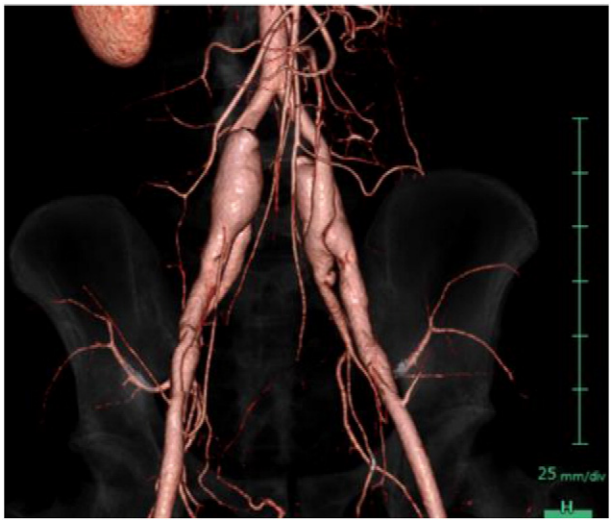

Fig. 2. Preoperative 3-dimensional enhanced computed tomography.

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Daisuke Sueta
Seiji Hokimoto*
Department of Cardiovascular Medicine, Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan
*Corresponding author at: Department of Cardiovascular Medicine, Kumamoto University Graduate School of Medical Sciences, 1-1-1 Honjo, Kumamoto 860-8556, Japan.
E-mail address: shokimot@kumamoto-u.ac.jp (S. Hokimoto).

Ryo Hirayama
Ryusuke Suzuki
Department of Cardiovascular Surgery, Japanese Red Cross Kumamoto Hospital, Kumamoto, Japan

Hisao Ogawa
Department of Cardiovascular Medicine, Kumamoto University Graduate School of Medical Sciences, Kumamoto, Japan

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